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10/561,139	12/16/2005	Melvin Carvell	C4315(C)	9423
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UNILEVER PATENT GROUP			STANLEY, JANE L	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/561,139	CARVELL ET AL.
	Examiner	Art Unit
	JANE L. STANLEY	1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 April, 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-25 is/are rejected.
- 7) Claim(s) 19 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20070424, 20060628</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Claim Objections***

Claim 19 is objected to because of the following informalities: the claim includes a period after "random" (bottom of pg 4 of amended claims) and a period after "from 1 to 20" (top of pg 5 of amended claims). Applicant is reminded of the proper format for a claim wherein said claim is one sentence in length. Appropriate correction is required.

Claim Rejections - 35 USC § 101/112

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 23 provides for the use of a composition to enhance the softening benefit of a laundry treatment composition on a substrate, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 23 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12, 16 and 18-20 is/are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the

claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the instance of **claim 12**, the claim recites the broad recitation “1:100 to 1:5” and the claim also recites “1:20 – 1:10” which is the narrower statement of the range/limitation.

In the instance of **claim 16**, the claim recites the broad recitation “30 to 99.9%” and the claim also recites “40 to 99%” which is the narrower statement of the range/limitation. Furthermore, the claim recites the broad recitation “polar solvent” and the claim also recites “water” which is the narrower statement of the range/limitation.

In the instance of **claim 18**, the claim recites the broad recitation “0.001 to 0.5” and the claim also recites “0.01 to 0.5,” “0.01 to 0.1” and “0.01 to 0.05” which are the narrower statements of the range/limitation.

In the instance of **claim 19**, the claim recites the broad recitation “random or block” and the claim also recites “random” which is the narrower statement of the range/limitation. Furthermore, the claim recites the broad recitation “n is from 5 to 1000” and the claim also recites “10 to 200” which is the narrower statement of the range/limitation. Furthermore, the claim recites the broad recitation “m is from 0 to 100” and the claim also recites “0 to 20” which is the narrower statement of the range/limitation. Furthermore, the claim recites the broad recitation “w is from 1 to 150” and the claim also recites “10 to 20” which is the narrower statement of the range/limitation.

Regarding claim 19, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 13 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurosawa et al. (US PGPub 2002/0022037).

Regarding claims 1-10, Kurosawa et al. teach an external composition comprising a silicone (first polymeric textile benefit species; polymeric textile softening species) - modified polysaccharide compound ([0025]), i.e. locust bean gum, guar gum etc. ([0030]), and a low viscosity silicon oil ([0043]-[0044]) (second textile benefit species; second textile softening species). Kurosawa et al. teaches the polysaccharide to be guar gum or locust bean gum and as such

the polysaccharide will have the properties of being water-soluble or dispersible, non-hydrolysable and having β_{1-4} -linkages and further that the polysaccharide-silicone bond is hydrolytically stable, as supported by the Applicant's original disclosure (pg 7, para 3). Furthermore, as Kurosawa et al. teaches the polysaccharide to be guar gum or locust bean gum, it is inherent that the silicone-modified polysaccharide would have the property wherein the silicone to polysaccharide bond is such that the decay rate constant (k_d) of the material in an aqueous solution at 0.01 wt% of the material together with 0.1 wt% of anionic surfactant at a temperature of 40°C at a pH of 10.5 is such that $k_d < 10^{-3} \text{ s}^{-1}$. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01.

Regarding claim 13, Kurosawa et al. teaches the external composition in the form of an emulsion ([0115]).

Regarding claim 21, Kurosawa et al. teaches the external composition which further comprises at least one additional component ([0086]).

Claims 1-9 and 17-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Dupont et al. (US 6,897,189).

Regarding claims 1-9, Dupont et al. teaches a laundry composition comprising a water-soluble or dispersible (col 2 ln 50-51) siloxane (first polymeric textile benefit species; polymeric textile softening species) modified polysaccharide (col 1 ln 49-50; col 9 ln 59) anti-wrinkle benefit compound (col 1

In 53-54) and a separate adjunct that enhances the anti-wrinkle effectiveness of the polysaccharide (col 9 ln 67 to col 10 ln 2) (second textile benefit species; second polymeric textile softening species). Dupont et al. further teaches that the polysaccharide is linked via 1,4-linkages (col 4 ln 28) and is a guar flour/guar gum (Ex. 4) and as such will have the properties of being non-hydrolysable and having β -oriented linkages, as supported by Applicant's original disclosure (pg 7, para. 3). Furthermore, as Dupont et al. teaches the polysaccharide to be guar flour/guar gum, it is inherent that the silicone-modified polysaccharide would have the propertywherein the silicone to polysaccharide bond is such that the decay rate constant (k_d) of the material in an aqueous solution at 0.01 wt% of the material together with 0.1 wt% of anionic surfactant at a temperature of 40°C at a pH of 10.5 is such that $k_d < 10^{-3}s^{-1}$. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. See MPEP 2112.01.

Regarding claim 17, Dupont et al. teaches the laundry composition wherein the silicone (first polymeric softening species) is a polydialkyl siloxane and/or an amine derivative thereof (see formula, col 5 ln 15-20 where R= hydrocabyl, alkyleneamino etc. col 5 ln 20-26).

Regarding claim 18, Dupont et al. teaches the laundry composition wherein the polysaccharide have less than 50% substitution and further have less than 10% substitution (col 5 ln 1-7).

Regarding claim 19, Dupont et al. teaches the laundry composition wherein the polysaccharide is substituted with silicone chains of the formula: R²-[(R²)₂Si]_p-(R²)₂Si-(L)_q- (col 5 ln 15-20) wherein R² is independently a C₁-C₂₂ linear or branched, substituted or unsubstituted hydrocarbyl moiety (col 5 ln 22-26) wherein p=0-50 (col 5 ln 31-33) and that when the linker L is present, q = 1 and when the linker L is absent, q = 0 (col 5 ln 49-50). (This anticipates the silicone chains of instant claim 19 wherein m=0 to 20, n= 10 to 200, G¹ and G³ are methyl, and G⁵ is methyl and trimethyl). Dupont et al. further teach that the silicone chain can have R² groups that are alkyeneamino units of formula - (CH₂)_mN(R⁷)₂ wherein R⁷ is hydrogen, C₁-C₁₂ linear or branched, substituted or unsubstituted hydrocarbyl moiety (col 5 ln 24-26) (this anticipates the instantly claimed silicone chain wherein G⁴ and/or G⁵ is -(CH₂)_s-NH₂).

Regarding claim 20, Dupont et al. teaches the laundry composition wherein the silicone-chain to polysaccharide bond (L) is selected from i.e. amides (xi, col 6 ln 2 for X=oxygen, col 6 ln 34) etc. (see col 5 ln 53 to col 6 ln 35 and col 6 ln 63 to col 7 ln 36).

Regarding claims 21-22, Dupont et al. teaches the laundry composition wherein the composition comprises a surfactant system (col 10 ln 65; i.e. col 11 ln 15 to col 12 ln 42).

Regarding claim 23, Dupont et al. teaches use of the laundry composition to enhance the anti-wrinkle benefit of a laundry composition (abstract).

While Dupont et al. does not specifically teach the laundry composition for use in enhancing laundry treatment softening benefits, as the anti-wrinkle benefiting composition disclosed, i.e. silicone modified guar gum with an anti-wrinkle enhancer is the water-soluble, non-hydrolysable polysaccharide having at least one first polymeric textile benefit species bonded thereto by a hydrolytically stable bond and a second textile benefit species which is not covalently bonded thereto, it is inherent that it will have the property of also enhancing softening benefits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of

35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 4-5 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bijsterbosch et al. (US 6,248,710) in view of Clarke et al. (US 6,251,850).

Regarding claims 1, 4-5 and 9-12, Bijsterbosch et al. teaches a fabric treatment composition comprising 0.01% to 15% by weight (col 10 ln 4) of a water-soluble or water-dispersible β_{1-4} linked non-hydrolysable polysaccharide (col 4 ln 5-6; col 3 ln 30-32) i.e. mannan, glucomannan etc (col 4 ln 7), that has at least one benefit agent (col 3 ln 45) i.e. silicone (col 4 ln 53) bonded thereon by a hydrolytically stable bond (col 3 ln 44-49) and wherein said benefit agent is a fabric softening/conditioning agent (first polymeric textile benefit agent) (col 4 ln 42).

Bijsterbosch et al. does not teach the composition wherein composition also comprises a second textile benefit species which is not covalently bonded to the modified polysaccharide and which comprises silicone with a viscosity of >2,500 mPas. However, Clarke et al. teaches fabric softener compositions comprising emulsified silicones (col 1 ln 48-49; nonionic, col 5 ln 9-10), wherein said silicones have a viscosity from 10,000 cSt to 1,000,000 cSt (col 1 ln 51) in an amount of from 3.5 to 15% by weight (col 6 ln 7). Clarke et al. and Bijsterbosch et al. are combinable because they are concerned with the same

field of endeavor, namely fabric softening compositions comprising polysaccharide polymers and surfactants. At the time of the invention a person having ordinary skill in the art would have found it obvious to use the emulsified silicones of Clarke et al. in the compositions of Bijsterbosch et al. and would have been motivated to do so to reduce wrinkling in treated fabrics (col 1 ln 14-15). Furthermore, as Bijsterbosch et al. teaches the silicone-modified polysaccharide as present from 0.01% to 15% by weight and Clarke et al. teaches the emulsified silicone as present from 3.5% to 15% by weight, the ratio of 1:100 to 1:5 parts by weight of first polymeric softening species modified non-hydrolysable polysaccharide to the second polymeric softening species is implicit.

Regarding claims 13-16, Bijsterbosch et al. further teaches the composition in aqueous form (col 10 ln 12-13) and comprising non-ionic surface-active agents (col 10 ln 21 and 48-57).

Bijsterbosch et al. does not teach the composition wherein the modified-polysaccharide is in the dispersed phase of an emulsion. However, Clarke et al. teaches fabric softener compositions comprising emulsified silicones, surfactants (col 1 ln 48-49; nonionic, col 5 ln 9-10) and viscosity control agents i.e. biological polymers such as xanthan gum or synthetic polymers such as celluloses (col 5 ln 50-53 and 57), wherein the composition is dispersed within an aqueous macro emulsion (col 5 ln 66-67 to col 6 ln 1-2; See examples 1 and 2, balance of water, ~90% for example 1). Clarke et al. and Bijsterbosch et al. are combinable because they are concerned with the same field of endeavor, namely aqueous fabric softening compositions comprising polysaccharide polymers and

surfactants. At the time of the invention a person having ordinary skill in the art would have found it obvious use the dispersed aqueous emulsion of Clarke et al. in the compositions of Bijsterbosch et al. and would have been motivated to do so to achieve good anti-creasing and ease of ironing (col 1 ln 37-39).

Claims 24-25, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bijsterbosch et al. in view of by Clarke et al. (US 6,251,850).

Bijsterbosch et al. teaches a fabric treatment composition comprising 0 to 30 wt% of a non-ionic surfactant (col 10 ln 59-60) and 0.01% to 25% by weight of the isotropic solution (col 10 ln 3-4) of a water-soluble or water-dispersible, non-hydrolysable β_{1-4} -linked polysaccharide (col 4 ln 5-6; col 3 ln 44-49) i.e. glucomannan (col 4 ln 7), said polysaccharide being covalently linked by a hydrolytically stable bond to a polymeric textile softening species (col 3ln 45) i.e. silicone (col 4 ln 53).

Bijsterbosch et al. does not teach the composition further comprising a second polymeric textile softening species comprising silicone. However, Clarke et al. teaches that it is well known in the art to use silicones, especially emulsions of silicones in fabric softener compositions (col 1 ln 11-15 and 22-23). As such it would have been within the ordinary skill of one in the art to include in the composition of Bijsterbosch et al. a silicone emulsion for the purpose of reducing wrinkling in the treated fabric (col 1 ln 14-15) with a reasonable expectation of success.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JANE L. STANLEY whose telephone number is (571)270-3870. The examiner can normally be reached on Monday-Thursday, 7:30 am - 5 pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARK EASHOO/
Supervisory Patent Examiner, Art Unit 1796
23-Jun-08

JLS